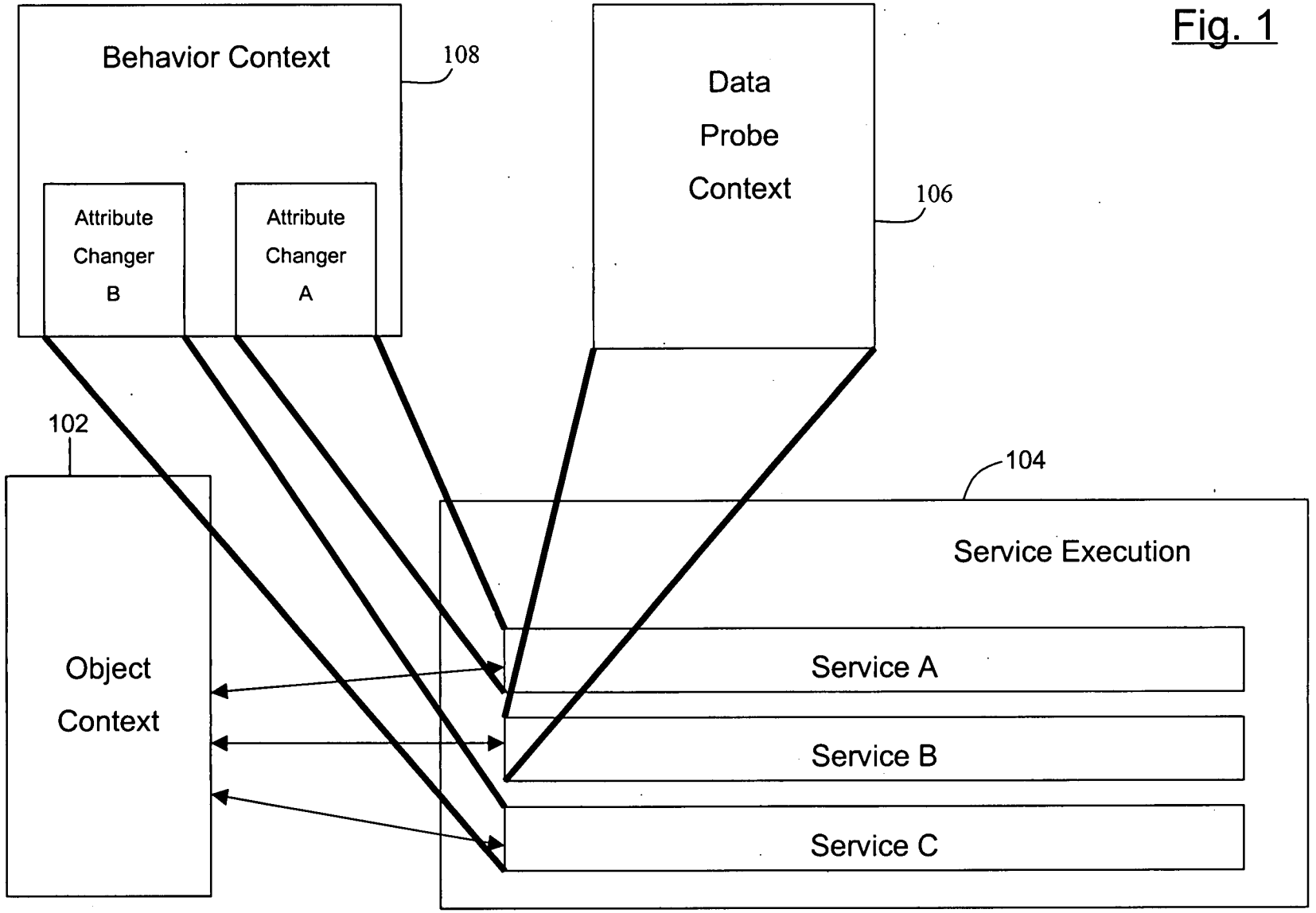
Fig. 1


Behavior Context
108
Attribute Changer B
Attribute Changer A
Data Probe Context
106
102
104
Service Execution
Object Context
Service A
Service B
Service C

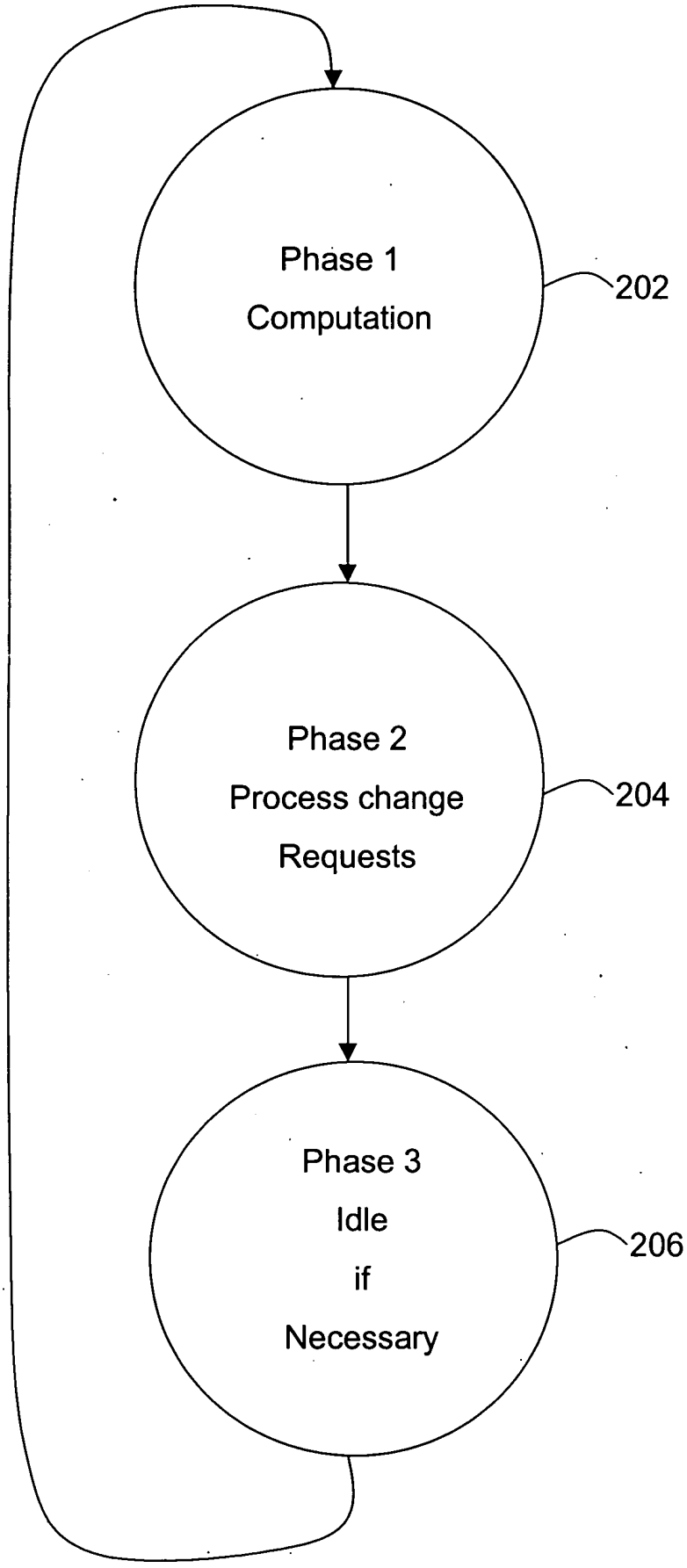
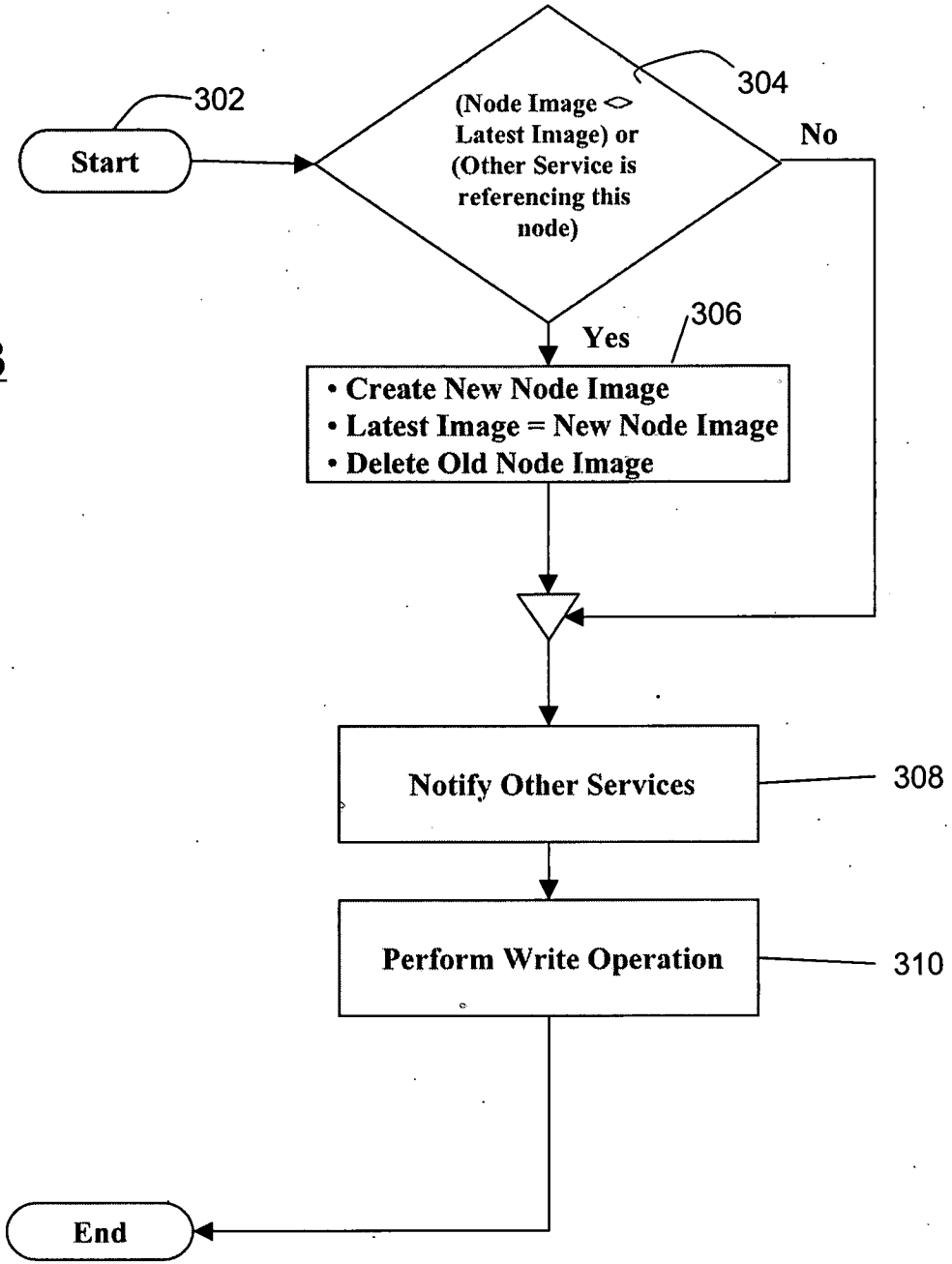

Phase 1
Computation
202
Phase 2
Process change
Requests
204
Phase 3
Idle
if
Necessary
206

Fig. 2

Fig. 3


Start
302
(Node Image <> Latest Image) or (Other Service is referencing this node)
304
No
Yes
306
• Create New Node Image
• Latest Image = New Node Image
• Delete Old Node Image
Notify Other Services
308
Perform Write Operation
310
End

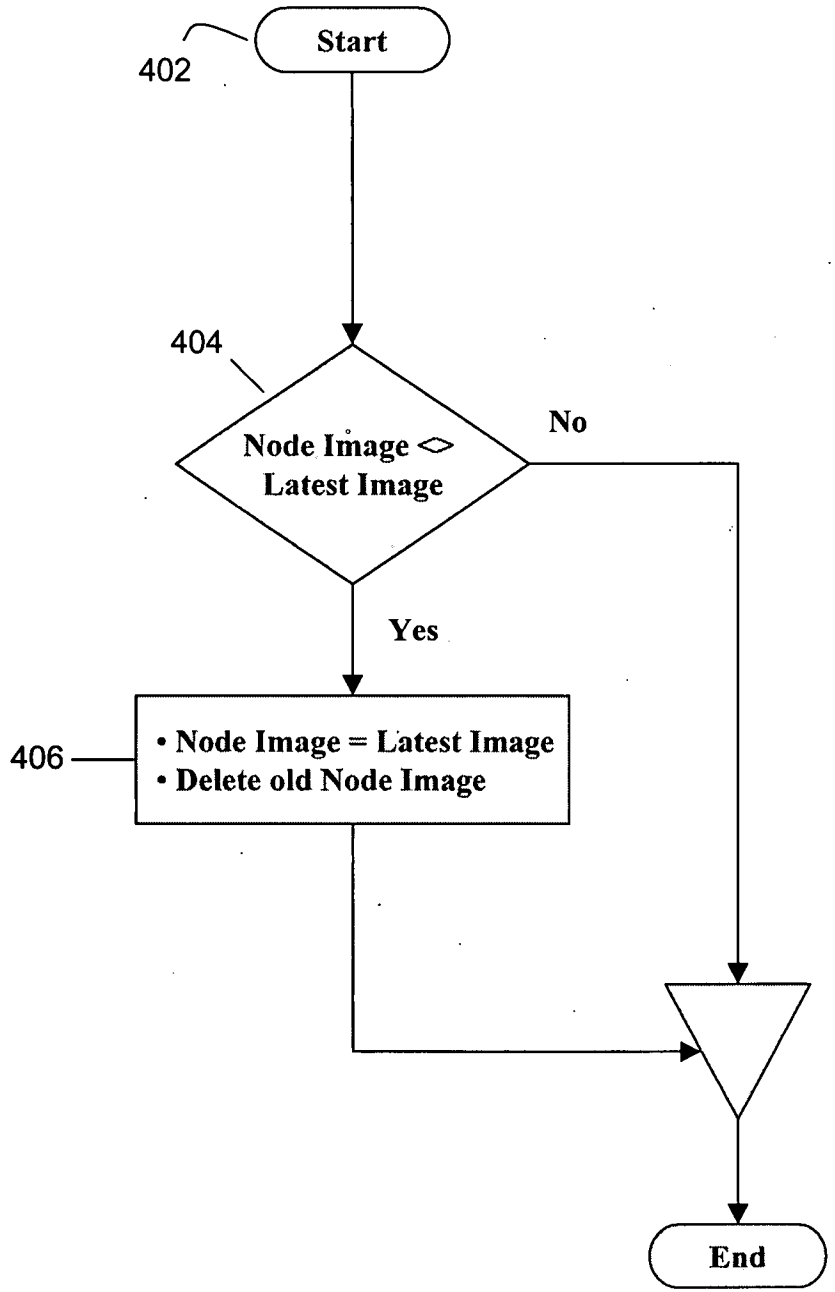

Start
402
404
Node Image <> Latest Image
No
Yes
406
• Node Image = Latest Image
• Delete old Node Image
End

Fig. 4

Attributes are read by Services, Attributes are written indirectly by creating write operations which are performed by a single unique Service, the Simulation Service. The process of updating attributes is "frame safe". Each Service can be running at a different "frame rate".

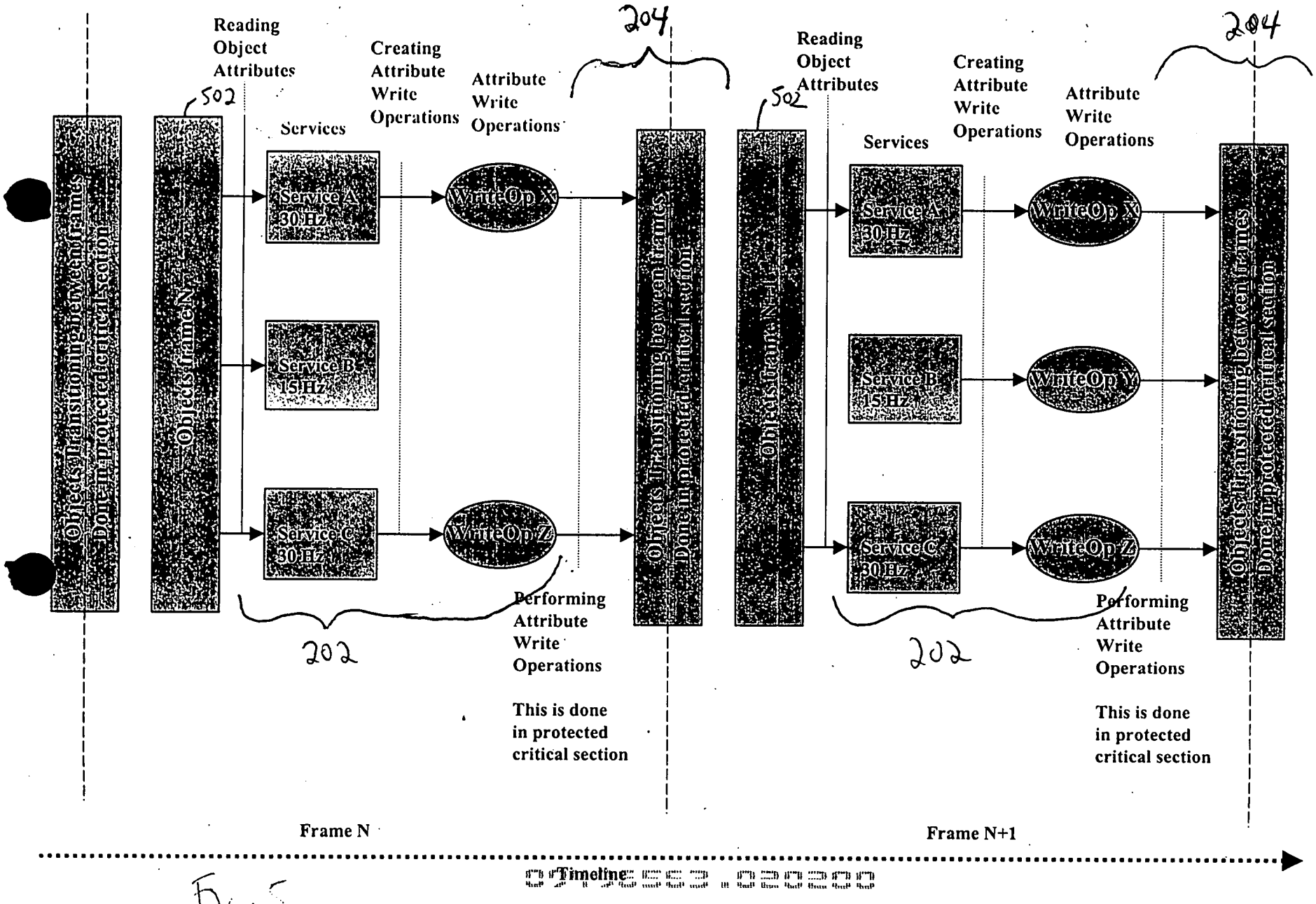
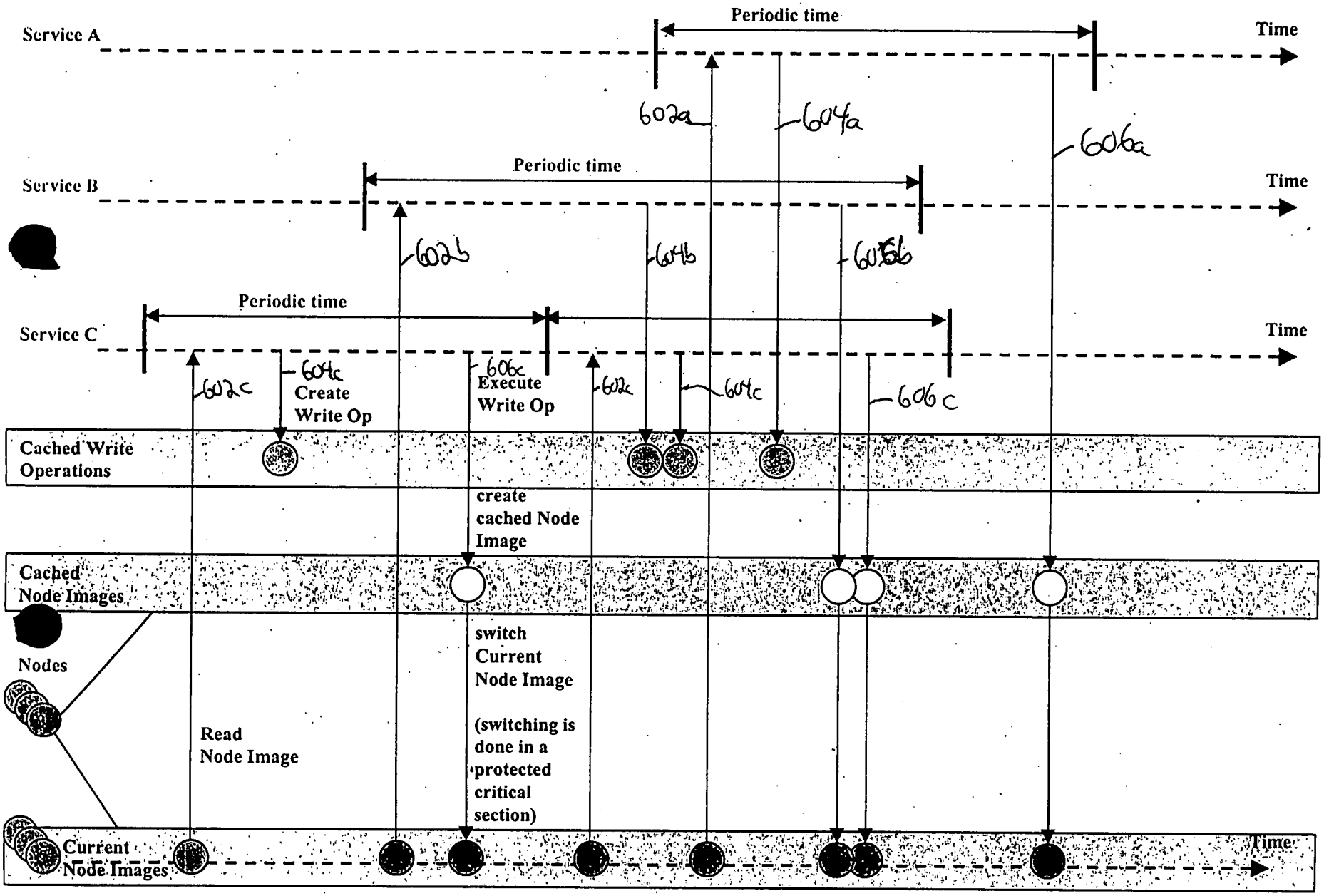


Fig. 5

Fig. 6

Services are running at independent frame rates (using different periodic time).
Each Service is running in a separate thread